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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

PIZARRO, RICARDO M

ART UNIT PAPER NUMBER

2661

DATE MAILED: 01/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/610,357

Applicant(s)

ENNS ET AL.

Examiner

Ricardo M. Pizarro

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13, 30-49, 64-69 and 90-104 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2, 6, 7, 9-13, 30-33, 36-49 and 90-104 is/are rejected.
- 7) ☒ Claim(s) 1, 3-5, 34 and 35 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The informal drawings filed in this application are acceptable for examination purposes. When the application is allowed, applicant will be required to submit new formal drawings.

Claim Objections

2. Claims 1-9, 11, 12, 33, 40-49, 90-99, 102-104 are objected to because of the following informalities and it is suggested to applicant:

In claim 1 line 10 replace ‘an’ with – a first -, in line 15 replace “ an” with – a second-, in line 17 replace “packet” with –packets-, in line 20 insert “ first and second” before –remote-.

In claim 9 lines 7 and 8 replace “device” with –devices-.

In claim 11 line 2 insert “said” before –traffic, in line 5 insert “said” before –remote-, in line 6 delete “an’.

In claim 12 line 3 insert “said” before “processor”.

In claim 33 insert “said” before –remote-.

In claim 40 insert “ said” before –available-.

In claim 42 line 2 delete “the”

In claim 45 line 1 replace “operating” with –operating-

. In claim 90 line 7 replace “packet” with –packets-, in line 8 replace “transmitter” with – transmitter”.

In claim 91 delete one occurrence of “at”.

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In claim 102 line 3 replace “a” with –said-.

In claim 103 line 2 replace “a” with –said-.

In claim 104 line 2 replace “packets” with –packet-.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 2, 6-7, 9, 36-39, 64-69, 90-99 , 101 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 2 lines 4-5 the term “ according to give in traffic conditions” is not understood and not know whet the term is referring to .

In claim 9 lines 8 the term ‘ a remote processor device” is unclear and not known to which one of the devices the term is referring to.

In claim 64 line 15 the term “ said control packet” is unclear and not known to which packet the term is referring to.

In claim 102 lines 1-2 the term “ comprising the step of Viterbi-encoding packets” is not understood and not know whet the term is referring to .

5. There is insufficient antecedent basis for all the following limitations in these claims.

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Claim 6 recites the limitation "said downstream channel" in line 3.

Claim 7 recites the limitation "said forward error correction" in lines 1-2.

Claim 36 recites the limitation "said shared medium" in line 5.

Claim 37 recites the limitation "said shared medium" in lines 5-6.

Claim 64 recites the limitation "said network management system" in lines 10-11.

Claim 90 recites the limitation "said remote interface" in line 12.

Claim 96 recites the limitation "said information packets" in line 2.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. Claims 10-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Majeti.

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US patent No. 5,675,732 (Majeti et al) discloses Dynamic Channel assignment for TCP /IP data transmitted via cable television channels by managing the channel as a single sub network, comprising :a two-way asymmetric communication system (ATM network un Fig. 2) for effecting communications between a server and plurality of remote processor devices over a high-speed downstream channel and a lower speed upstream channel interposed between said server and said remote processor devices(remote device s ei.2. 220 in Fig. 2) comprising a shared medium (Element 216 in Fig, 2)including plural channel that convey information to remote devices in communication with said server, a network management system (Network bandwidth manager 240 in Fig. 2) for monitoring usage in said plural channel and balancing traffic loads in said channels by distributing traffic therein in a way to increase utilization of available bandwidth over said medium (record keeping of each request, abstract) as in claim 10; said network management system balance traffic in accordance with at least one of available bandwidth (load balancing , col 5 lines 53-55) , as in claim 11; said network management system effects assignment of upstream transmit frequencies to said remote devices in accordance with available upstream channels and quality of said upstream channel element 232 in fig. 2, col 3 lines 43-45, Manager 240 in Fig. 2, col 3 lines 53-60), as in claim 12

8. Claims 30-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Majeti.

US patent No. 5,675,732 (Majeti et al) discloses Dynamic Channel assignment for TCP /IP data transmitted via cable television channels by managing the channel as a single sub network, comprising an asymmetric network (ATM network un Fig. 2) having respective upstream and downstream communication paths for enabling a plurality of remote devices (remote device s ei.2. 220 in Fig. 2) to receive information from a host over a shared medium comprising plural

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downstream channels operating over said shared medium (Shared element 216 in Fig. 2) and a network manager (Network bandwidth manager 240 in Fig. 2) for providing bandwidth management of downstream bandwidth allocated to respective remote devices over said plural channels, as in claim 30; said manager includes operative routines for balancing loads among channels on a downstream medium of said network (load balancing , col 5 lines 53-55), as in claim 32.

9. Claims 36-41, 45-49 are rejected under 35 U.S.C. 102(e) as being anticipated by Majeti. US patent No. 5,675,732 (Majeti et al) discloses Dynamic Channel assignment for TCP /IP data transmitted via cable television channels by managing the channel as a single sub network, comprising an asymmetric communication system, a shared medium (Shared element 216 in Fig. 2) including plural downstream channels for communication, remote devices and server , as in claims 36, 37 and 40, a network manager (Network Bandwidth Manager 240 in Fig. 2) for monitoring usage in the shared channel and balancing traffic loads in the plural channel , as in claim 36 and 40 ; monitoring the shared media channel (record keeping, abstract), allocating downstream bandwidth to respective remote devices in accordance with bandwidth utilization, available bandwidth and demand for bandwidth (col 3 lines 14-18), demand for bandwidth (wide band distribution, col4 lines 57-60), as in claim 37 and 40; assigning at least one of an address (col 5 lines 11-12), as in claim 39; balancing traffic load among shared downstream medium (col 5 lines 53-55), as in claim 41; shared medium comprises one of a CATV network (col 3 lines 8-10), as in claim 46; one upstream channel is at least one of a router return network, as in claim 47 (element 232 in Fig. 2), as in claim 47; a telephony return link (col 3 lines 43-

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52), as in claim 48; transmitting information in accordance with at least one of IP, (IP network in Fig. 2), as in claim 49.

10. Claims 101-102 are rejected under 35 U.S.C. 102(e) as being anticipated by Majeti. US patent No. 5,675,732 (Majeti et al) discloses Dynamic Channel assignment for TCP /IP data transmitted via cable television channels by managing the channel as a single sub network, comprising an asymmetric network communication system (ATM network in Fig. 2) including at least one high speed downstream channel operating over a shared medium (Shared element 216 in Fig. 2) comprising receiving from a network management system (Network manager 240 in fig. 2) an information packet containing configuration data including at least a remote device upstream assignment (upstream connections 232 in fig. 2) effecting operation of said remote device with at least said device upstream assignment (Upstream bandwidth manager assigns upstream frequencies), as in claim 100; reporting operation of said device to a network management system confirming operation in accordance with said address assignment (Network manager 240 in Fig. 2), as in claim 101; gathering statistical operation of data, as in claim 102.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Majeti in view of Schurr.

Majeti did not specifically disclose said network management system provides FEC to control packets transmitted over said downstream channel to said remote devices, as in claim 13.

US patent No. 6,021,158 (Schurr et al) discloses a Hybrid network comprising applying error correction to said packet, as in claim 13.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to provide the FEC means to the system disclosed by Majeti with the motivation of obtaining a reliable transmission free of errors in the system.

13. Claims 33, 42-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Majeti in view of Ghaibeh.

Majeti discloses all of the limitations but did not specifically disclose upstream channel allocation, as in claims 33, 42-45.

US patent No. 5,956,338 (Ghaibeh) discloses a Shared medium system disclosing upstream channel allocation, as in claims 33, 52-45.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to provide the upstream allocation as disclosed by Ghaibeh to the system disclosed by Majeti with the motivation of an efficient data transmission protocol for both downstream and upstream communication paths which dynamically allocate network bandwidth.

14. Claims 103-103 are rejected under 35 U.S.C. 103(a) as being unpatentable over Majeti in view of Schurr

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Majeti discloses all the limitation but did not specifically disclose comprising Viterbi-encoding – packets (col 17 lines8-15), as in claim 103; applying error correction to said packet (col 10 lines 10-15), as in claim 104.

US patent No. 6,021,158 (Schurr et al) discloses a Hybrid network comprising Viterbi-encoding –packets, as in claim 103; applying error correction to said packet, as in claim 104.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to provide the encoding method as disclosed by Schurr to the system disclosed by Majeti with the motivation of obtaining a reliable transmission free of errors in the system.

Allowable Subject Matter

15. Claims 34-35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claim.

16. Claims 2, 6-7, 9, 90-99 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action. Please also notice objection to claims 1-9, 90-99.

17. Claims 64-69 would be allowable if rewritten or amended to overcome the objections under 37 CFR 1.75 set forth in this Office action.

Conclusion

18. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314

(for formal communications intended for entry, for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Ricardo Pizarro** whose telephone number is (703) 305-1121. The examiner can normally be reached on Monday-Friday from 9:00 AM to 5:30 PM. The fax number for this Group is (703) 872-9314.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Douglas Olms**, can be reached on (703) 305-4703.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.

1/8/2004

Ricardo M. Pizarro

Douglas W. Olms

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